

customer.

- For repairs that require spare parts not available in Kingdom, the company guarantees completion of repair within 8 workweeks from receipt of maintenance request by Fax or e-mail from the authorized officer of the customer.

Company undertakes to provide highly qualified trained engineers for equipment covered by this contract and sold by the Company to First Party.

8. Fault reporting system

First Party shall notify the Second Party of faults by Fax, E-mail or on phone, to the maintenance department of the company. Reports shall indicate the type and date of fault. Faults shall be reported during company work hours from 08:30AM to 01:30PM and from 02:30PM to 07:00 PM Exception of this will be Fridays, Saturdays and official holidays.

- Call Center No. : 920026426

9. Spare parts

The Second Party shall supply the spare parts required by the first party for repair of equipment included in this contract, based on a report to be submitted by the engineer of the Second Party and a quotation to be accepted by the First Party

10. Maintenance service

The Second Party shall provide the maintenance services of the equipment mentioned in this contract. Such services shall be provided during regular work hours during weekdays from Sunday to Thursday : from 08:30AM to 01:30PM and from 02:30PM to 07:00 PM

Maintenance services provided by the company shall cover the following:

1. Undertaking scheduled service inspections as specified by the manufacturer, provided that such inspections are performed as previously contained in agreement, including lubrication, cleaning, equipment function inspection, current leak inspection, setting and calibration of equipment. Inspection timing shall be agreed in advance in such a way as to provide company technicians' full access to the equipment listed in contract to undertake such inspections. In case company officials are denied such access to equipment, inspection work shall be suspended.

Exceptions:

This agreement shall not cover maintenance and repair services resulting from causes beyond the control of the company, such as the acts of God, acts of civil and military authorities, fires, civil commotion, floods, epidemics, health and quarantine restrictions, wars, rebellion, transport problems, power supply faults, air-condition faults as well as reasons beyond the control of the company related to supply of manpower, supply of material, manufacturing facilities. In case repairs, setting works, spare parts or maintenance works are required due to the foregoing reasons or due to acts of negligence, default or mistakes by customer or agents thereof.

Variations in costs:

Company is entitled to change costs of maintenance works included in agreement upon completion of contract term or for any following year. Such change shall be notified to customer within (30) days of occurrence thereof. Upon receipt of such notice the customer may terminate the services of the company through a notice to that effect before the effective date of such change. However, in the event the customer fails to terminate the service of the company, the new costs shall be valid effective the

- بالنسبة للإصلاح الذي يحتاج إلى قطع غيار غير متوفرة داخل المملكة فإن الشركة تضمن الإصلاح خلال 8 أسابيع عمل أو أقل من استلام طلب صيانة سواء بالفاكس أو بالإيميل من الشخص المخول بطلب الصيانة من المستشفى

تضمن الشركة توفير مهندسين وقنيين مدربين بشكل ممتاز على الأجهزة موضوع العقد والمباعة من الشركة إلى الطرف الأول .

8- نظام تلقي بلاغات الأعطال :-

يقوم الطرف الأول بإبلاغ الطرف الثاني بالأعطال وذلك بواسطة رسالة فاكس أو إيميل وإذا تعذر ذلك يكون البلاغ تليفونيا لقسم الصيانة بالشركة على أن يوضح خلال اتصال العطل الموجود بالجهاز وتاريخ العطل وذلك خلال ساعات العمل اليومي من الساعة الثامنة والنصف صباحاً وحتى الواحدة والنصف ظهراً ومن الساعة الثانية والنصف عصراً وحتى الساعة السابعة مساءً عدا يومي الجمعة والسبت من كل أسبوع والعطلات الرسمية

- رقم خدمة العملاء : 920026426

9- قطع الغيار :-

يقوم الطرف الثاني بتوفير قطع الغيار التي يحتاجها الطرف الأول لإصلاح الأجهزة موضوع العقد بناءً على تقرير صيانة وعرض أسعار يرفعه مهندس الطرف الثاني ويقله الطرف الأول

10- خدمات الصيانة:-

سيقوم الطرف الثاني بتوفير خدمات الصيانة المحددة في الاتفاقية للمعدات والأجهزة موضوع العقد وسيتم تقديم هذه الخدمة خلال فترة العمل النهارية العادية خلال الأسبوع المكون من خمسة أيام من الأحد إلى السبت من الساعة الثامنة والنصف صباحاً وحتى الواحدة والنصف ظهراً ومن الساعة الثانية والنصف عصراً وحتى الساعة السابعة مساءً وهي أوقات العمل الرسمية. وتشمل خدمات الصيانة المقدمة من الشركة ما يلي:-

1- القيام بفحوصات خدمات الصيانة المجدولة كما هو محدد من قبل الشركة المصنعة حيث يتم إنجازها حسب الجدول الوارد سابقاً في الاتفاقية وتشمل هذه الفحوصات أعمال التشحيم والنظافة وفحوصات وظائف المعدات وفحوصات تسريب التبريد وأعمال الضبط والمعايرة ويتم الاتفاق على مواعيد الفحص مسبقاً حيث يمنح موظفو الشركة كامل الحرية للوصول إلى المعدات موضوع العقد للقيام بأعمال الفحص وستوقف أعمال الفحص إذا لم يتمكن موظفو الشركة من الوصول إلى المعدات والأجهزة.

استثناءات:-

لا تشمل هذه الاتفاقية تقديم أعمال الصيانة والإصلاح إذا كان العطل ناتج عن أسباب خارجة عن نطاق قدرة وسيطرة الشركة مثل أمور القضاء والقدر والأعمال الناتجة عن إقفل السلطات المدنية والعسكرية والحروب الأهلية والحرائق والاضطرابات، الفيضانات، الأمراض، قيود الحجر الصحي، الحروب، أعمال الشغب ومشاكل النقل وأعطال في الكهرباء أو عدم الانتظام في تزويدها وأعطال أنظمة التكييف أو أسباب خارجة عن نطاق قدرة الشركة بتوفير العمالة والمواد أو تسهيلات التصنيع وإذا تطلب الأمر إجراء تصليحات أو أي أعمال ضبط أو استبدال القطع أو توفير الصيانة وذلك نتيجة أي من الأسباب الأتية الذكر أو بسبب إهمال أو تقصير العميل أو نتيجة لارتكاب أي أعمال خاطئة من قبل العميل أو وكلائه

التغير في التكاليف

لشركة الحق في تغيير تكاليف أعمال الصيانة الواردة في هذه الاتفاقية بعد انتهاء مدة العقد من هذه الاتفاقية أو في أي سنة تالية وذلك بإعطاء العميل إشعار خطي قبل (30) يوماً من أحداث ذلك التغيير وللعميل الحق في إنهاء الاتفاقية عند استلام ذلك الإشعار عن طريق إخطار الشركة بذلك قبل تاريخ سريان التغيير وإذا أخفق العميل بإعطاء إشعار بإنهاء خدمات الشركة فإن تكاليف الصيانة الجديدة تصبح سارية ابتداء من التاريخ المحدد في إشعار الشركة للعميل.

date specified by the company on the notice to the customer.

In the event the customer makes any adjustments, changes or additions in equipment included in this agreement, which changes the company deems either to make change in services rendered by the company under this agreement, or affect the performance of the equipment, and then company shall be entitled to terminate this agreement or increase the costs/ rates included hereunder. In case the costs sustained by the company under this agreement should increase after the date of effectiveness due to any change in the law, action or due to internal decrees issued or put in operation after the effective date of this agreement, such extra/ additional costs shall be added to the costs specified in agreement.

Any other conditions of this agreement, including the term thereof, which may be affected by such changes, shall be appropriately amended within any law, jurisdiction or otherwise. In case a petition is submitted to a receiver, bankruptcy or violation to any of the terms of the agreement by the customer, which violation is not duly remedied, then the company is entitled, on own discretion, to declare the customer in default, and accordingly take the following measures:

1. To declare that all amounts are due and payable under the agreement.
2. File claim for application of agreement terms or recover damage due to violation of agreement.

Limits of liabilities and obligations

The company shall in no way be liable for any damage to first party or his patients because of the equipment, whether such damages are special, contingent or partial, due to violation of contract, security or tort (including default, debts and obligations), including the following without limitation: loss of equipment use or any other related equipment, damage of equipment related to basic equipment, loss of capital costs, value of alternative products, facilities, services, power as well as costs of temporary stoppage of equipment and any claims by the customer for such damage.

In the event company provides any consultation or assistance to customer in relation to any equipment covered by the agreement, while such consultation and assistance is not included in agreement, or in case such consultation or assistance is related to equipment not referred to in this agreement, then this consultation or assistance shall not involve the company in any responsibility whether in contract, security or in cause of damage of injury (including negligence, debts and obligations)

Covering of information:

The information, proposals and ideas conveyed from customer to company in relation to performance of services under this contract shall not be considered as secrets or confidential unless expressly proved in writing upon approval of the official representative of the company.

General note

This agreement is considered to be the complete and exclusive statement between the parties and therefore supersedes all prior or concurrent proposals or communications regarding the agreement or any other business not included hereunder shall not be binding on parties. Any assignment, change or amendment in conditions contained herein shall not be binding on company unless rendered in writing and signed by the duly authorized representative of the parties.

The validity of this agreement, its implementation as well as all other matters related thereto, including amendment thereon, shall

و في حالة استحداث العميل لأي تعديلات أو تغييرات أو إضافات على الأجهزة والمعدات التي تشملها هذه الاتفاقية والتي من شأنها في نظر الشركة أن تحدث تغيير في الخدمات التي تقوم بها الشركة ضمن هذه الاتفاقية أو أن تؤثر على أداء الأجهزة والمعدات فيكون للشركة الحق في إنهاء هذه الاتفاقية أو تغيير التكاليف الواردة فيها. و في حالة زيادة التكاليف التي تتحملها الشركة حيال تنفيذ هذه الاتفاقية بعد تاريخ سريان مفعولها نتيجة إلى تغيير في القانون أو أي إجراء أو تنظيم أو نتيجة للمراسيم أو القوانين الداخلية التي تصدر أو يجري العمل بها بعد تاريخ ابتداء العمل في الاتفاقية فإنه يجري إضافة التكاليف الزائدة إلى التكاليف المحددة في الاتفاقية

ان أي شروط أخرى في هذه الاتفاقية بما في ذلك مدة العقد والتي يمكن أن تتأثر بمثل هذه التغييرات سيجري تعديلها بالشكل المناسب ضمن أي قانون أو تشريع أو غيره. في حال تقديم العميل عريضة لجارس قضائي أو في حالة الإفلاس أو في حالة نقض العميل أي شرط من شروط الاتفاقية و لم يتم معالجة هذا النقض فإن للشركة الحق حسب اختيارها أن تعلن أن العميل مهمل و مقصر و لها الحق في اتخاذ أي من الخطوات التالية:-

1- إعلان كافة مبالغ الاتفاقية المستحقة واجبة الدفع.

2- إقامة دعوى لتطبيق بنود الاتفاقية أو لاسترداد ما حصل من أضرار نتيجة لنقض الاتفاقية

حدود المسؤولية والالتزامات

لن تكون الشركة مسؤولة في أي حال من الأحوال عن أي أضرار يتعرض لها الطرف الأول أو مرضاء بسبب الأجهزة سواء كانت تلك الأضرار خاصة أو عارضة أو جزئية ناتجة عن مخالفة للعقد أو الكفالة أو أضرار متعمدة أو غير متعمدة (بما في ذلك التقصير أو الديون أو الالتزامات) لها في ذلك على سبيل المثال لا الحصر الخسارة في استعمال الأجهزة والمعدات أو أي معدات ذات علاقة و التلف في المعدات التي على علاقة بالمعدات الأساسية و كلفة رأس المال و ثمن المنتجات البديلة و المرافق و الخدمات و الطاقة البديلة و التكاليف الناتجة عن التوقف المؤقت للأجهزة أو أي مطالب أخرى من جانب العميل عن هذه الأضرار

و في حالة تقديم الشركة للمشورة والمساعدة للعميل فيما يتعلق بأي أجهزة واردة في الاتفاقية دون أن تكون هذه المساعدة أو المشورة مشمولة بهذه الاتفاقية أو إذا كانت هذه المساعدة تتعلق بجهاز لم يشار إليها في هذه الاتفاقية فإن تقديم هذه المشورة و المساعدة لن يحمل الشركة أي مسؤولية سواء كان ذلك في العقد أو الكفالة أو في حالة الضرر و التلف (بما في ذلك الإهمال أو الديون أو الالتزامات) أو غير ذلك.

الإفصاح عن المعلومات

لن يتم اعتبار أي من المعلومات أو اقتراحات أو أي أفكار تنقل من العميل إلى الشركة بخصوص تنفيذ الخدمات ضمن الاتفاقية بمثابة أسرار و لن يتم رفعها إلى الشركة بطريقة سرية ما لم يثبت ذلك و بطريقة خطية وبموافقة ممثل الشركة الرسمي.

ملاحظه عامه

تعتبر هذه الاتفاقية بمثابة التنظيم الكامل والوحيد للعلاقة بين الطرفين ويكون لها الغلبة على أي وثيقة أو عرض أو مراسلات أو أي عود أو شروط سابقة لتاريخ هذه الاتفاقية والتي تبقى جميعها غير ملزمة لأي من الطرفين وإن أي تنازل أو تغيير أو تعديل لأي من الشروط الواردة ضمن الاتفاقية لا يعتبر ملزم للشركة ما لم يكن خطيا و موقعا نيابة عن الشركة من جانب أحد ممثليها المعتمدين و المفوضين بذلك.

إن سريان مفعول الاتفاقية و تنفيذها وكافة المسائل المتعلقة بها وكذلك أي تعديلات تجري عليها ستكون خاضعة لقوانين المملكة العربية السعودية.

all be subject to the Laws of the Kingdom of Saudi Arabia.

The demands for service or any part thereof under this contract, which are in satisfaction and performance and not as a further security or obligation of the company, its affiliates, the manufacturer of the complete equipment or any part thereof, shall be in writing before or at the time or providing the service. Failure to notify the company to that effect shall be deemed as a waiver for any similar demands.

The total or partial non validity of an article or a paragraph of this agreement shall not affect the validity or correctness of the remaining articles or paragraphs of the agreement. Any deletion, addition or change in this agreement or any supplement thereof shall promptly render the same as null and void.

This agreement is subject to all related laws and regulations prevailing in the Kingdom of Saudi Arabia.

This contract has been issued in 29 pages, each party maintains one signed and stamped copy.

Success if from Allah

إن تنفيذ الخدمات في ظل هذه الاتفاقية تعتبر إرضاء و تلبية لطلبات العميل ولا يجوز اعتبارها كغرامة أو التزام آخر من الشركة أو الشركات التابعة لها أو من مصنع الأجهزة يجب أن تكون طلبات الخدمة خطية قبل أو في الوقت الذي يتم طلب الخدمة فيه. وإن عدم إبلاغ الشركة بذلك يعتبر تنازلاً عن طلب الخدمة. إن عدم سريان المفعول الكلي أو الجزئي لأي مادة أو فقرة في هذه الاتفاقية لن يؤثر على سريان وصحة ما تبقى من تلك المواد أو الفقرات الواردة في هذه الاتفاقية أي حذف أو إضافة أو تغيير في هذه الاتفاقية أو أي من ملحقاتها يؤدي إلى إلغاء هذه الاتفاقية فوراً

ينطبق على هذه الاتفاقية القوانين والأنظمة ذات العلاقة المعمول بها في المملكة العربية السعودية

حرر هذا العقد في 29 صفحات ومن نسختين أصليتين يحتفظ كل طرف بنسخة موقعة ومختومة.

والله ولي التوفيق .

First Party:

Signature:

Stamp:

الطرف الأول:

التوقيع:

الختم:

Second Party: Al-Amin Maintenance & Contracting Co. Ltd.

Signature:

Stamp:

الطرف الثاني: شركة الأمين لصيانة الأجهزة والمعدات الطبية

التوقيع:

الختم:



MEDICAL EQUIPMENT SUBJECTED TO CONTRACT

Supplement A

MADINAH MOUNWARAH CENTER

Sr.	Equipment	Serial No.	Model	Manufacturer	Location	Maintenance Schedule	
						First PPM	Second PPM
1	Super Executive Unit	300	S. Executive	Frastema	0149	17/04/2016	9/10/2016
2	Slit Lamp		BM-900	Haag Streit	0149	17/04/2016	9/10/2016
3	Chart Projector	265203	CP-670	Nidek	0149	17/04/2016	9/10/2016
4	Keratometer	20052	KM-250	Nidek	0149	17/04/2016	9/10/2016
5	Portable Slit Lamp	1508704189	SL-15	Kowa	0149	17/04/2016	9/10/2016
6	Phorabtor	23370	RT-600	Nidek	0149	17/04/2016	9/10/2016
7	Indirect Ophthalmoscope		Omega 180	Heine	0149	17/04/2016	9/10/2016
8	Retinoscope		Beta - 200	Heine	0149	17/04/2016	9/10/2016
9	Retinoscope Head		Beta - 200	Heine	0149	17/04/2016	9/10/2016
10	Super Executive Unit	62	S. Executive	Frastema	0142	17/04/2016	9/10/2016
11	Slit Lamp	18465	BQ-900	Haag Striet	0142	17/04/2016	9/10/2016
12	System Chart Projector	220857	CP-660	Nidek	0142	17/04/2016	9/10/2016
13	Indirect ophthalmoscope	15732	Omega180	Heine	0142	17/04/2016	9/10/2016
14	Keratometer	20383	KM-250	Nidek	0142	17/04/2016	9/10/2016
15	Portable Slit Lamp	1508604189	SL-15	Kowa	0142	17/04/2016	9/10/2016
16	Rechargeable Handle	5542904	Beta-200	Heine	0140	17/04/2016	9/10/2016
17	Super Executive unit	630	S. Executive	Frastema	0140	17/04/2016	9/10/2016
18	Slit Lamp	2100159	SL-990	CSO	0140	17/04/2016	9/10/2016
19	System Chart Projector	501068	SC-1400	Nidek	0140	17/04/2016	9/10/2016
20	Indirect Ophthalmoscope	15733	Omega180	Heine	0140	17/04/2016	9/10/2016
21	Portable Slit Lamp	1508608049	SL-15	Kowa	0140	17/04/2016	9/10/2016
22	Retinoscope		Beta 200	Heine	0140	17/04/2016	9/10/2016
23	Ophthalmoscope		Beta 200	Heine	0144	18/04/2016	10/10/2016
24	Examination Unit		Delta	Frastema	0144	18/04/2016	10/10/2016
25	Slit Lamp		BM-900	Haagstreit	0144	18/04/2016	10/10/2016
26	Auto Chart Projector	262052	CP-670	Nidek	0144	18/04/2016	10/10/2016
27	Keratometer	20382	KM-250	Nidek	0144	18/04/2016	10/10/2016
28	Indirect ophthalmoscope	1246272	Omega500	Heine	0144	18/04/2016	10/10/2016
29	Portable Slit Lamp	210672	SL-14	Kowa	0144	18/04/2016	10/10/2016
30	Phorapter	23564	RT-600	Nidek	0144	18/04/2016	10/10/2016
31	Ophthalmoscope		Lambda100	Heine	0144	18/04/2016	10/10/2016
32	Super Executive unit	627	S. Executive	Frastema	0146	18/04/2016	10/10/2016
33	Slit Lamp	15835	BM900	Haag Striet	0146	18/04/2016	10/10/2016
34	Chart Projector	762855	CP-690	Nidek	0146	18/04/2016	10/10/2016
35	Indirect ophthalmoscope	1120008868	Omega500	Heine	0146	18/04/2016	10/10/2016
36	Direct Ophthalmoscope w/ handle		Beta Heine	Heine	0146	18/04/2016	10/10/2016
37	Super Executive Unit		S. Executive	Frastema	0139	18/04/2016	10/10/2016
38	SlitLamp	15835	BM900	Haag Striet	0139	18/04/2016	10/10/2016
39	Chart Projector	262051	CP-670	Nidek	0139	18/04/2016	10/10/2016
40	Indirect ophthalmoscope	1120008867	Omega500	Heine	0139	18/04/2016	10/10/2016
41	Ophthalmoscope	4.963.014	Beta 200	Heine	0139	18/04/2016	10/10/2016
42	Retinoscope	5.859.687	Beta 200	Heine	0139	18/04/2016	10/10/2016
43	Portable Slit Lamp	31855100408	Beta 200	Kowa	0139	18/04/2016	10/10/2016
44	Auto Lensmeter	14743	LM-350		0145	18/04/2016	10/10/2016
45	Auto Chart Projector	265205	CP- 670		0145	18/04/2016	10/10/2016
46	Retinoscope		BETA-200		0145	18/04/2016	10/10/2016

47	Ophthalmoscope			BETA-200		0145	OPD	18/04/2016	10/10/2016
48	Portable autoref/keratometer	30404		ARK-30		0145	OPD	18/04/2016	10/10/2016
49	Portable autoref/keratometer charger/ AR station	10692		AR-205T1		0145	OPD	18/04/2016	10/10/2016
50	Auto Lensmeter	14743		LM-990		0145	OPD	19/04/2016	11/10/2016
51	Refractor/ VT- 1	651603		RT-600		0145	OPD	19/04/2016	11/10/2016
52	Super Executive unit	266		S. Executive	Frastema	0134	OPD	19/04/2016	11/10/2016
53	Slit Lamp	3817		BQ-900	Haag Striet	0134	OPD	19/04/2016	11/10/2016
54	Chart Projector	256204		CP-670	Nidek	0134	OPD	19/04/2016	11/10/2016
55	Indirect Ophthalmoscope	15532		Omegal180	Heine	0134	OPD	19/04/2016	11/10/2016
56	Ophthalmoscope Beta 200			Heine	Heine	0134	OPD	19/04/2016	11/10/2016
57	Refinoscope Beta 200			Heine	Heine	0134	OPD	19/04/2016	11/10/2016
58	Examination Unit			Frastema	Frastema	0133	OPD	19/04/2016	11/10/2016
59	Slit Lamp	6675		HR-900	Haag Striet	0133	OPD	19/04/2016	11/10/2016
60	Chart Projector	220789		SCP-660	Nidek	0133	OPD	19/04/2016	11/10/2016
61	Indirect Ophthalmoscope	2163856		Omega 500	Heine	0133	OPD	19/04/2016	11/10/2016
62	TonoPen	2501359		Tono-Pen XL	Medtronic	0133	OPD	19/04/2016	11/10/2016
63	AutoRef Keratometer	430262		ARK-1	Nidek	0150	OPD	19/04/2016	11/10/2016
64	Lensmeter	12720		LM-990	Nidek	0150	OPD	19/04/2016	11/10/2016
65	Lens meter	503706		LM- 600P	Nidek	0151	OPD	19/04/2016	11/10/2016
66	Autorefractometer	331871		ARK- 510A	Nidek	0151	OPD	19/04/2016	11/10/2016
67	Multi color Laser Photocoagulator	70532		MC - 7000	Nidek	0132	OPD	19/04/2016	11/10/2016
68	Ophthalmic Yag laser	30416		YC-1300	Nidek	0132	OPD	19/04/2016	11/10/2016
69	Laser Photocoagulator	40983		SL-1600	Nidek	0132	OPD	19/04/2016	11/10/2016
70	Indirect Ophthalmoscope	17252		SN 1246256	Heine	0132	OPD	19/04/2016	11/10/2016
71	Ent Examination Unit			Reliance		0153	OPD	19/04/2016	11/10/2016
72	Portable Audio Tympanometer	C2000 0122				0153	OPD	19/04/2016	11/10/2016
73	Ent Patient Chair	158311		980 AFC		0153	OPD	19/04/2016	11/10/2016
74	Otoscope 3.5v	71670		25020A		0153	OPD	19/04/2016	11/10/2016
75	Fiber Optic Light Source	1/407		HK-7000		0153	OPD	19/04/2016	11/10/2016
76	Examination Unit	-		-		0137	OPD	19/04/2016	11/10/2016
77	Patient Chair					0137	OPD	19/04/2016	11/10/2016
78	Microscope	121016		OPMI		0137	OPD	19/04/2016	11/10/2016
79	Medical Suction Machine	3040595				0137	OPD	19/04/2016	11/10/2016
80	Fiber Optic Light Source			HK-7000		0137	OPD	19/04/2016	11/10/2016
81	Head Light	-		MD 500		0137	OPD	19/04/2016	11/10/2016
82	Otoscope with Charger	25020A		25020A		0137	OPD	20/04/2016	12/10/2016
83	Digital Video Cam	K44050A-5262		Super Cam 810000-PAL		0137	OPD	20/04/2016	12/10/2016
84	Examination Unit					0138	OPD	20/04/2016	12/10/2016
85	Patient Examination Chair			88AD		0138	OPD	20/04/2016	12/10/2016
86	Floor Stand Microscope			Moller Wedel Spectra 500		0138	OPD	20/04/2016	12/10/2016
87	Light Source 3.5v			HK-7000 Hiene		0138	OPD	20/04/2016	12/10/2016
88	Otoscope 3.5v			71670		0138	OPD	20/04/2016	12/10/2016
89	Octopus Perimeter IOL Visual Field	889/2000		101	Haag Striet	0136	OPD	20/04/2016	12/10/2016
90	GSI Clinical Autometer	990632		GSI 61	Gsi	0136	OPD	20/04/2016	12/10/2016
91	Auto-Tympanometer	A101534		GSI 39	GSI	0136	OPD	20/04/2016	12/10/2016
92	Super Executive Unit	960		Frastema	Frastema	0158	OPD	20/04/2016	12/10/2016
93	Chart Projector	764456		CP-690	Nidek	0158	OPD	20/04/2016	12/10/2016
94	EchoScan	40670		US-4000	Nidek	0158	OPD	20/04/2016	12/10/2016
95	Lens meter	27568			Nidek	0158	OPD	20/04/2016	12/10/2016
96	Retinoscop	-		Beta- 200	Heine	0158	OPD	20/04/2016	12/10/2016
97	Ultrasonic Pachymeter	UP-1000		NIDEK		0307	LAST	20/04/2016	12/10/2016

98	Dsaek Machine	19380	MORIA		0307	ASIR	20/04/2016	12/10/2016
99	Cross- linking machine	KX1140712	Avedo		0307	ASIR	20/04/2016	12/10/2016
100	Infiniti Vision System Ozil Compatible	0601185301X	OZIL INFINITI		0118	OK	20/04/2016	12/10/2016
101	Infiniti Vision System Ozil Compatible	0702252501X	OZIL INFINITI		0119	OK	20/04/2016	12/10/2016
102	Alcon Accurus VS-400	0301400701X	ACCURUS 400 VS		0120	OK	20/04/2016	12/10/2016
103	Diode(photoacoagulator)	300059	DC-3000		0120	OK	20/04/2016	12/10/2016
104	Infiniti Vision System Ozil Compatible	1101005201X	OZIL INFINITI		0120	OK	20/04/2016	12/10/2016
105	Constellation	1302259101X			0120	OK	20/04/2016	12/10/2016
106	Laser Diode Photocoagulator DC 3300	33367	NIDEK		0120	OK	20/04/2016	12/10/2016
107	Super Executive Unit	768	S. Executive	Frastema	0141	OPD	20/04/2016	12/10/2016
108	Slit Lamp	6614	BQ-900	Haag Streit	0141	OPD	20/04/2016	12/10/2016
109	Charl Projector	166596	CP770	Nidek	0141	OPD	20/04/2016	12/10/2016
110	Tonometer	2069	A1900	Haag Streit	0141	OPD	21/04/2016	13/10/2016
111	Super Executive Unit	769	S. Executive	Frastema	0144	OPD	21/04/2016	13/10/2016
112	Slit Lamp	6613	BQ-900	Haag Streit	0144	OPD	21/04/2016	13/10/2016
113	Charl Projector	166666	CP770	Nidek	0144	OPD	21/04/2016	13/10/2016
114	Tonometer	2043	A1900	Haag Streit	0144	OPD	21/04/2016	13/10/2016
115	AutoRef Keratometer	431193	ARK-1	Nidek		OPD	21/04/2016	13/10/2016
116	AutoRef Keratometer	431188	ARK-2	Nidek		OPD	21/04/2016	13/10/2016
117	AutoRef Keratometer	432100	ARK-3	Nidek		OPD	21/04/2016	13/10/2016
118	Lens meter	506090	LM-600P	Nidek		OPD	21/04/2016	13/10/2016
119	Lens meter	506267	LM-600P	Nidek		OPD	21/04/2016	13/10/2016
120	Lens meter	506268	LM-600P	Nidek		OPD	21/04/2016	13/10/2016
121	Lens meter	506091	LM-600P	Nidek		OPD	21/04/2016	13/10/2016
122	Laser Diode Photocoagulator	33367	DC-3300	NIDEK	0120	OR	21/04/2016	13/10/2016
123	Lacrimax Diode Laser	900013	Optatek- Lacrimax	Optatek	0119	OR	21/04/2016	13/10/2016
124	Centurion Phaco Machine	1502878901x	Centurion	Alcon	0120	OR	21/04/2016	13/10/2016
125	Centurion Phaco Machine	1502891901x	Centurion	Alcon	0118	OR	21/04/2016	13/10/2016
126	TONOPEN XL - TONOMETER					Nurse Station	21/04/2016	13/10/2016
127	TONOPEN XL - TONOMETER					Nurse Station	21/04/2016	13/10/2016



CENTURION STP DATA SHEET

Customer: _____

Service Request No.: _____

S/N: _____

Date Serviced: March 9, 2015

NOTE: Throughout this data sheet fill in the requested data or explain any unchecked boxes or N/A's in the notes section at the end of the form

1.0 Test Equipment	Equipment	Calibration Number	Calibration Due Date
	Scopemeter		
	Pressure Meter		
	Pneumatics Transducer Test Box		

☐ Preventative Maintenance (Start at step 2.1)

☐ Installation, Repair, Upgrade and all other Service Activities (Start at step 3.0)

PREVENTATIVE MAINTENANCE

- 2.1 Power cord resistance
- | Expected Values | Meter Reading |
|-----------------|---------------|
| ≤0.5 Ohms | Ohms |
- 2.2 ☐ Display tilt and rotate operated correctly.
- 2.3 ☐ Tray arm operated correctly.
- 2.4 ☐ Work surface operated correctly.
- 2.5.1 ☐ Verified exhaust air flowed from vents.
- 2.5.2 ☐ Air filters are clean.
- 2.6 ☐ Manufactured date and serial number are entered in system correctly.
- 2.7 ☐ Cable wireless footswitch functioned correctly.
- 2.8 ☐ Make certain all four casters are tight.

FUNCTIONAL TESTS

- 3.0 ☐ No advisory of warning displayed following power up.
- 4.0 Record software version: Rel _____
- 5.0 ☐ Touchscreen responded appropriately.
- 6.0 ☐ Date and time are correctly set in console.
- 7.0 ☐ Tones and voice controls worked correctly.
- 8.0 ☐ Task light turned on and off.
- 9.0 ☐ IV pole functioned properly.
- 10.1 ☐ Footswitch has full treadle travel motion.
- Is tested footswitch a Centurion Wireless?
- ☐ YES, Complete step 10.2.
- ☐ NO, Skip to step 10.3.
- 10.2 ☐ A minimum of 4 pedal_up sensors are functioning.
- 10.3 ☐ All four side-switches are functioning properly.

11.0 ☐ Remote control functions properly.

12.0 ☐ Both PEL LED panels tracked properly.

13.1 Record transducer accuracy values:

Input mmHg	Expected mmHg	IPS Reading	APS Reading
+200	+180 to +220	+	+
0	+10 to -10		
-100	-90 to -110	-	-
-400	-360 to -440	-	-
-600	-540 to -660	-	-
Record Meter Value (if unable to obtain -600 mmHg)			
- if needed			

13.2 ☐ Cassette passed priming process.

Title

Drawing Number

Revision

STP,CENTURION VISION SYSTEM

917-2150-002

E

Irvine, CA

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CENTURION STP DATA SHEET

13.3 Record accumulated water level:

60	48 to 72cc in 1 min.	cc/min
25	20 to 30cc in 1 min.	cc/min

13.4 Record displayed bag pressure reading:

+120	+90 to +150 mmHg
+170	+140 to +200 mmHg

14.0 Record pneumatics cutter waveform calculated measurements:

VDC Bias	-30 to +60 mV	mV
Min Peak	≥ 475mV	mV
Max Peak [absolute value]	≥ 475mV	mV

15.0 Universal Load Box resistance verification:

Cautery Load	71.0Ω to 79.0Ω	Ω
Ozil Load	2.37KΩ to 2.62KΩ	KΩ

16.0 Record Cautery frequency and voltages:

Frequency	1.35 to 1.65 MHz	MHz
100%	23.9 to 29.2	Vrms
50%	17.3 to 21.1	Vrms
25%	12.2 to 14.8	Vrms

17.0 Ultrasound Output Test

Top Long. Freq.	41.6 – 42.2 KHz	KHz
Top Long. Vrms	9.9 – 13.3 Vrms	Vrms
Mid. Tors. Freq.	31.7 – 32.2 KHz	KHz
Mid. Tors. Vrms	4.9 – 6.6 Vrms	Vrms

Does system contain software 2.04 or higher?
☐ YES, Complete test table below.
☐ NO, Skip to step 18.0.

Infiniti Long. Freq.	33.5 – 37.5 KHz	KHz
Infiniti Long. Vrms	9.9 – 13.3 Vrms	Vrms
Infiniti Tors. Freq.	31.7 – 32.2 KHz	KHz
Infiniti Tors. Vrms	4.9 – 6.6 Vrms	Vrms

18.0 ☐ IOL Injector operated properly.

19.0 ☐ Event Log backed up successfully to a USB flash drive.

20.0 ☐ A spare Centurion wireless footswitch cable is present.

21.0 ☐ System successfully switched to battery backup when AC cord was disconnected.

March 9, 2015

Date

Test Performed By (PRINT)

Notes:

Title

STP,CENTURION VISION SYSTEM

Irvine, CA

Drawing Number

917-2150-002

Revision

E

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Customer _____ Service Request No. _____
 Model Choose Model S/N _____ Date Serviced _____

NOTE: Throughout this checklist, fill in the requested data or indicate completed. Explain N/A's in notes section of this document.

Test Equipment	Equipment	Calibration Number	Calibration Due Date

Check one of the following: ☐ Preventative Maintenance or ☐ Service Call / Installation / Upgrade
(complete section 2.1, then proceed to 2.2) (start at section 2.2)

2.1. PREVENTATIVE MAINTENANCE CHECK

2.1.1 ☐ Inspect and clean front panel touchscreen. 2.1.2 ☐ Inspect and clean internal console 2.1.3 ☐ Check ground resistance 2.1.4 ☐ Inspect system hardware 2.1.5 ☐ Visually inspect all cables, connectors, PCB's, etc 2.1.6 ☐ Check and tighten casters 2.1.7 ☐ Check Fluidic Module Hub Rollers 2.1.8 ☐ Inspect Fluidic Module Solenoids 2.1.9 ☐ Check Fluidic Module Vent Valve Linkage screw 2.1.10 ☐ System Cooling 2.1.11 ☐ IV Pole test	2.1.12 ☐ Inspect CPC Connector 2.1.13 ☐ Inspect Pneumatic Air and Moisture Filters 2.1.14 ☐ Replacement of CPU PCB Battery (p/n 190-022) ☐ Not due 2.1.15 ☐ Replacement of 12 Volt Battery (p/n 190-020) ☐ Not due 2.1.16 ☐ Power Supply Voltages: Dual P.S. 5v = 5.1 to 5.25 _____ Single P.S. 5v = 5.1 to 5.4 _____ 12v = 12.1 to 12.25 _____ 24v = 24 to 24.5 _____ 2.1.17 ☐ VideOverlay Data Output Test (see step 2.2.15) 2.1.18 ☐ Replace system covers
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2.2. SERVICE FUNCTIONAL TEST

2.2.1 Load Box Resistance					
Cautery Plugs 75Ω ± 4Ω	Adapter Cable 2.37K Ω to 2.62K Ω	Motor Output & Gnd M Out & Gnd 9.5Ω 1and 10.5Ω	Motor Output & Motor 1 M Out & M1 9.5Ω 1and 10.5Ω	Motor Output & Motor 2 M Out & M2 9.5Ω 1and 10.5Ω	Aqualase 23.0 Ω - 27.0Ω
_____ohms	_____Kohms	_____ohms	_____ohms	_____ohms	_____ohms

☐ Universal Load Box (P/N 210-3202-001) used during testing

2.2.2. FRONT PANEL & TRAY ARM TEST

2.2.2.1 DISPLAY 2.2.2.1.2 ☐ Verify display shows Setup screen 2.2.2.1.3 ☐ Check Display Arm range of motion 2.2.2.2 ☐ Check Tray Arm range of motion <u>2.2.2.3 TOUCH SCREEN/TONE/VOICE</u> 2.2.2.3.3 ☐ Verify Touch Screen step changes. 2.2.2.3.4 ☐ Verify tone/voice responses <u>2.2.2.4. CONTROL BUTTONS</u> 2.2.2.4.1 ☐ Verify settings adjustments, change Linear and Fixed	<u>2.2.2.5 MULTIMEDIA CARD DRIVE</u> 2.2.2.5.1 ☐ From System to Data Card 2.2.2.5.2 ☐ Delete Data from System 2.2.2.5.3 ☐ Restore from Data Card to System 2.2.2.5.4 ☐ Delete Data from Card 2.2.2.5.5 ☐ Delete Data from System <u>2.2.2.6 EVENT VIEWER AND LOG RETRIEVAL</u> 2.2.2.6.2 ☐ List noted 2.2.2.6.4 ☐ Event Log Backed Up and Uploaded
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2.2.3. REMOTE CONTROL TEST

2.2.3.FLUIDICS MODULE TEST

2.2.4.1 FMS AUTO LOAD 2.2.4.1.3 ☐ Verify FMS Latch Mechanism pulls/holds FMS 2.2.4.1.4. Record REL_____ from the About Screen 2.2.4.2 ASPIRATION SENSOR CALIBRATION 2.2.4.2.1. ☐ Verify FMS calibration passed 2.2.4.3 IRRIGATION FAILSAFE 2.2.4.3.4. ☐ Verify list of faults displayed	2.2.5.1 ☐ Verify footswitch icon indicates position 0. 2.2.5.3.1 ☐ Observe change from position 0 to 1 and to 2. 2.2.5.3.2 ☐ Coag power increases from 0-100% as pedal depressed 2.2.5.4 ☐ No intermittent response: COAG Power or FTSW icon. 2.2.5.6 ☐ Verify footswitch detects vibration. 2.2.5.7 ☐ Verify footswitch vertical, horizontal, and treadle switches (left and right for each).
--	--

2.2.5. FOOTSWITCH TEST

- 2.2.5.1 ☐ Verify footswitch icon indicates position 0.
- 2.2.5.3.1 ☐ Observe change from position 0 to 1 and to 2.
- 2.2.5.3.2 ☐ Coag power increases from 0-100% as pedal depressed
- 2.2.5.4 ☐ No intermittent response: COAG Power or FTSW icon.
- 2.2.5.6 ☐ Verify footswitch detects vibration.
- 2.2.5.7 ☐ Verify footswitch vertical, horizontal, and treadle switches (left and right for each).

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Parent Document: ITC SOP-000637

Supercedes: S0637-01

2.2.6.1.6 Record measurements:

DPM	Irrigation Specification	IPS Reading on Display	Aspiration Specification	APS Reading on Display
+100 ± 1 mmHg	+135 ± 14 cmH ₂ O	+ cmH ₂ O	+100 ± 10 mmHg	+ mmHg
+50 ± 1 mmHg	+68 ± 7 cmH ₂ O	+ cmH ₂ O	+50 ± 10 mmHg	+ mmHg
0 ± 1 mmHg	0 ± 7 cmH ₂ O	cmH ₂ O	0 ± 10 mmHg	mmHg
-60 ± 1 mmHg	0 ± 7 cmH ₂ O	cmH ₂ O	-60 ± 10 mmHg	- mmHg
-200 ± 1 mmHg	0 ± 7 cmH ₂ O	cmH ₂ O	-200 ± 20 mmHg	- mmHg
-400 ± 1 mmHg	0 ± 7 cmH ₂ O	cmH ₂ O	-400 ± 40 mmHg	- mmHg
-600 ± 1 mmHg	0 ± 7 cmH ₂ O	cmH ₂ O	-600 ± 60 mmHg	- mmHg

2.2.6.2. FMS PRIME - WET TEST

2.2.6.2.4. ☐ Verify PRIME completes

2.2.6.3 OCCLUSION TEST

2.2.6.3.1 Measurements:

VACUUM LIMIT	ASPIRATION RATE	SPECIFICATION	Reading on Display
6	12	0 to -16 mmHg	- mmHg
26	15	-16 to -36 mmHg	- mmHg
65	25	-55 to -75 mmHg	- mmHg
400	40	-360 to -440 mmHg	- mmHg
600	60	-540 to -660 mmHg	- mmHg

2.2.6.3.1.3 ☐ Verify audible chime, pump stops, and OCCLUSION displayed during Occlusion

2.2.6.4 RESIDUAL PRESSURE 2.2.6.4.3 ☐ Three readings ≤ 15mmHg at 100mmHg 2.2.6.4.4 ☐ Three readings ≤ 15mmHg at 400mmHg 2.2.6.4.5 ☐ Three readings ≤ 15mmHg at 600mmHg 2.2.7. PNEUMATICS TEST- 800 CPM 2.2.7.1 Method: ☐ DPM /Scopemeter ☐ N/A 2.2.7.1.4 (____ mVp) ≥ +231.84 mV at 50cpm 2.2.7.1.5 ☐ ≥ +231.84mV for each cut rate 100-800 2.2.7.2 Method: ☐ Probe Drive Test Box/Scopemeter ☐ N/A 2.2.7.2.5 ☐ Peak output > 23psi (1.15Vpp or 2.3 div) 2.2.9. CAUTERY TEST 2.2.9.4 (____ MHz) Coag frequency (from 1.43 to 1.67 MHz) 2.2.9.5 (____ VRMS) Coag voltage at 100% (24.4 to 30.4 VRMS) 2.2.9.6 (____ VRMS) Coag voltage at 50% actual (17.4 to 21.4 VRMS) 2.2.9.7 (____ VRMS) Coag voltage at 25% actual (12.2 to 15.2 VRMS) 2.2.10 PHACO AND NEOSONIX DRIVE TEST ☐ Unable to use NeoSonix Loadbox, go to Step 2.2.11		2.2.6.5 ASPIRATION FLOW RATE - Indicate test method used to verify flow rates: ☐ FLOWMETER or ☐ BEAKER 2.2.6.5.1 (____ cc/min) FLOW RATE at 35cc/min (30-40cc/min) 2.2.6.5.2 (____ cc/min) FLOW RATE at 25cc/min (21-29cc/min) 2.2.8 PNEUMATICS TEST- ULTRAVIT- 2500 CPM Check here ☐ if N/A; system does not have Ultravit 2500 feature 2.2.8.2.8 VDC Min Peak Closed (____ mVp) ≥ 520 mv 2.2.8.2.9 VDC Min Peak Open (____ mVp) ≥ -480 mv (absolute value) 2.2.10.1. NEOSONIX DRIVE TEST - Top Connector 2.2.10.1.6.1. (____ VRMS) 1.785 to 3.775 VRMS 2.2.10.1.6.2. (____ %) 57% to 63% of Duty Cycle 2.2.10.3 PHACO DRIVE TEST - Bottom Connector 2.2.10.2.5.1 (____ VRMS) 4.62 to 6.93 VRMS, 4.85 to 7.28 (Univ Loadbox) 2.2.10.2.5.2 (____ kHz) 33.5 to 37.5kHz	
2.2.11 CUSTOMER HANDPIECE CHECK: (perform these tests if customer will provide the use of their handpieces or unable to use Loadbox. Check here if handpieces not available ☐) 2.2.11.1 ☐ Customers handpiece(s) operated per procedure Record Customer Handpiece Serial Number(s) (Any additional Handpiece put in Notes Field): (T= Torsional/P=Phaco/N=NeoSonix): (S/N _____ T ☐ P ☐ N ☐) (S/N _____ T ☐ P ☐ N ☐)		2.2.12 AQUALASE™ DRIVE AND PNEUMATIC TEST ☐ Unable to use Aqualase Load box, go to Step 2.2.13 2.2.12.1.3 ☐ Verify Setup screen states "Aqualase™ Test Tuned" 2.2.12.2. LOAD BOX USAGE 2.2.12.2.6 ☐ In Magnitude Linear, Limit 100, Pulse, 50pps and Burst Linear, Limit 100, press F/S to pos. 3: verify: MAGNITUDE varies 0 to 100, PULSE displays 50pps, BURST varies 0 to 100 2.2.12.2.7 ☐ ScopeMeter above 280vpp, DPM reading above 5psi	
2.2.13 CUSTOMER AQUALASE™ HANDPIECE CHECK (perform these tests if customer will provide the use of their handpieces or unable to use Loadbox. Check here if handpieces not available ☐) Record Customer Handpiece Serial Number(s) (Any additional Handpiece put in Notes Field): (S/N _____) 2.2.13.2 AQUALASE™ HANDPIECE TUNING 2.2.13.2.2 ☐ Verify H/P passes tune displayed on LCD Display 2.2.13.3 AQUALASE™ HANDPIECE USAGE 2.2.13.3.4 ☐ Verify results from Procedure 2.2.13.3.8 ☐ Verify results from Procedure		2.2.14 Autosert IOL Motor ☐ Software version 3.0 or higher 2.2.14.8 ☐ Steps completed without error 2.2.15 WIRELESS FEATURE CHECK 2.2.15.2 ☐ N/A ☐ On and connected. 2.2.16. BATTERY BACKUP TEST 2.2.16.2 ☐ System closes Windows® and shuts down between 5 sec and 1 minute 2.2.17. VIDEO overlay DATA OUTPUT TEST Note: Installation or PM only, otherwise, ☐ N/A 2.2.17.11 ☐ Typed characters appear on display when Interface PCB and jumper are connected	

Notes:

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Parent Document: ITC SOP-000637

Supersedes: S0637-01

2.2.4 DIATHERMY TEST

2.2.4.1 DIATHERMY LOAD VERIFICATION Cautery Test Load ohm (75.0 +/- 4.0)

2.2.4.3 ☐ Audible tone when footpedal is pressed.

2.2.4.4 - 2.2.4.5 Measure and record the following:

MEASUREMENT	ACCEPTABLE RANGE	RECORD MEASURED VALUE
Frequency	323 - 357 KHz	KHz
Scope Amplitude	38.8 - 42.4 Vrms	Vrms

2.2.4.6 ☐ With Diathermy power set to 0, the amplitude is < 0.7 Vrms.

2.2.4.7 ☐ Diathermy linearity increases from 2.8 - 4.24 with each increment of 10.

2.2.4.8 Voltage Feedback Reading Vdc (3.96 - 4.04)

2.2.5 PRESSURE REGULATORS

2.2.5.1 Measure and record the following:

Location	Test Port	Acceptable Range	Record Measured Value
Press/Vac Manifold	TP1	82 – 93 Psi (5-Bar Pressure Select Is N/A)	+ psi
Press/Vac Manifold	TP2	27 – 33 Psi	+ psi
Press/Vac Manifold	TP3	54 – 60 Psi	+ psi

2.2.5.2 ☐ TP3 <62 psi with T2 clamped.

2.2.6 FOOTPEDAL TEST

2.2.6.1 ☐ Verify footpedal icon changes correspondingly to footpedal treadle and switches.

2.2.7 GLOBAL DEFAULTS AND KEY TEST

2.2.7.3 ☐ Verify Global Display Default Values

2.2.8 CASSETTE INSERT EJECT

2.2.8.1 ☐ Verify Cassette Loading Sequence

2.2.8.2 Verify Cassette Unloading Sequence

2.2.9 TOUCH SCREEN TEST

2.2.9.2 ☐ Verify Touchscreen icons and handpiece LEDs function.

2.2.10 EXTRUDE (VACUUM) MODE TEST

2.2.10.3 Measure and record the following:

MAX LIMIT PRESET	ACCEPTABLE RANGE	RECORD MEASURED VALUE
200	191 – 209	- mmHg
400	387 – 413	- mmHg
600	583 – 617	- mmHg
	<i>(5-BAR Pressure select is N/A)</i>	

2.2.11 REFLUX TEST

2.2.11.1 ☐ Verify aspiration #2 Reflux pincher, hammer sequence.

2.2.11.2 ☐ Verify aspiration #1 Reflux pincher, hammer sequence.

2.2.12 FLUID LEVEL SENSOR TEST

2.2.12.3 ☐ Verify Sensor Operation as stated in Table 3.

2.2.13 CASSETTE SENSOR RECOGNITION - MODEL 800CS ONLY

2.2.13.3 ☐ Using the sensor test tool, verify cassette sensor recognition.

2.2.14 VGFI TEST **2.2.14.2** Measure and record the following:

VGFI PRESET	ACCEPTABLE RANGE	RECORD MEASURED VALUE
022	18 – 26	+ mmHg
070	65 – 75	+ mmHg
120	113 – 127	+ mmHg

2.2.14.3 ☐ Verify Actual Display Stability.

2.2.15 BACKUP PRESSURE

2.2.15.2 Measure and record backup pressure + _____ mmHg (25-35)

2.2.16 ILLUMINATOR TEST

2.2.16.4 ☐ Verify ILLUM 1 operation.

2.2.16.5 ☐ Verify ILLUM 2 operation. 2.2.16.9 ☐ Bulb is properly aligned.

2.2.17 PROBE DRIVE TESTS

2.2.17.1 XS2 & XS3 PLATFORMS

2.2.17.1.4/2.2.17.2.5 MODELS EXCEPT 300VS- Verify output $\geq$ to 23 psi + _____ psi.

2.2.17.1.6/2.2.17.2.7 MODELS EXCEPT 300VS Verify output $\geq$ to 23 psi + _____ psi.

2.2.17.3.4/2.2.17.4.5 MODEL 300VS ONLY – ACCURUS Verify output is >29 psi + _____ psi.

2.2.17.5 XS4 PROBE DRIVE TESTS

2.2.17.5.5/2.2.17.6.5 Verify "CLOSE" output ≥ 29 psi + _____ psi "OPEN" output ≤ 9 psi + _____ psi.

2.2.17.5.8/2.2.17.6.8 Verify "CLOSE" output ≥ 29 psi + _____ psi "OPEN" output ≤ 15 psi + _____ psi

2.2.18 SCISSORS DRIVE

2.2.18.2 Verify pressure is 20 +/- 2 + _____ psi (18-22) 2.2.18.4 ☐ MultiCut output pulses.

2.2.19 MPC SCISSORS – XS3 & XS4 ONLY

2.2.19.1 MPC LOAD VERIFICATION: MPC Test Load _____ ohm (4.0 +/- 0.2)

2.2.19.5 Verify peak voltage _____ Vdc (10.0 – 11.6)

2.2.19.6 Verify hold voltage _____ Vdc (1.0 – 1.4)

2.2.19.7 Verify voltage with hold disabled _____ Vdc (0 – 0.1)

2.2.20 VFC TEST – DOES NOT APPLY TO 300VS

2.2.20.2 VFC INJECT: Measure and record the following:

MAX LIMIT	ACCEPTABLE RANGE	RECORD MEASURED VALUE
40	38 - 42	+ psi
80	77 – 83 (5-BAR Pressure select is N/A)	+ psi

2.2.20.3 ☐ Verify pedal control of pressure 0 - 80 psi. (0-70 for 5-BAR Pressure select)

2.2.20.5 VFC EXTRACT: Measure and record the following:

MAX LIMIT	ACCEPTABLE RANGE	RECORD MEASURED VALUE
600	583 – 617 (5-BAR Pressure select is N/A)	- mmHg
400	387 – 413	- mmHg
200	191 – 209	- mmHg

2.2.20.6 ☐ Verify pedal control of vacuum.

XS3 & XS4 PLATFORM ONLY 2.2.20.10 ☐ Verify pressure and vacuum readings on LCD (actual).

XS3 & XS4 PLATFORM ONLY 2.2.20.11 ☐ Verify pressure leakage is ≤ 10 psi.

2.2.21 FRAGMENTOME TEST

2.2.21.1 Is the customer's handpiece available? ☐ No Skip steps 2.2.21.2 - 2.2.21.13

☐ Yes Complete section 2.2.21 and record handpiece s/n _____

2.2.21.2 ☐ Customer's Handpiece tunes. 2.2.21.4, 2.2.21.5 ☐ Fragmentome Momentary functions

2.2.21.7, 2.2.21.8 ☐ Fragmentome Proportional functions 2.2.21.10 ☐ Fragmentome Fixed functions

2.2.21.12, 2.2.21.13 ☐ Fragmentome Pulse functions

2.2.22 REMOTE CONTROL

Does the Accurus® have a remote control? ☐ No Skip section 2.2.22 ☐ Yes Complete section 2.2.22

2.2.22.1 ☐ Verify that the Remote Control is capable of selecting modes and changing preset values.

STEPS 2.2.23 – 2.2.25 APPLY ONLY TO MODEL 600DS or 800CS

2.2.23 I/A MAX

2.2.23.6 Record measured vacuum reading - _____ mmHg (387 - 413)

2.2.24 CONTINUOUS REFLUX

2.2.24.1 ☐ Verify that continuous reflux pincher momentarily retracts.

2.2.24.2 ☐ Verify that continuous reflux pincher remains retracted.

Table 4 - Constellation Data Sheet

Date:	System Configuration	Equipment	Calibration Number	Calibration Due Date
Customer:	Tray Arm 2.3.2.1	Scopemeter/Oscilloscope		
Service Request #:	Aux Illum 2.3.17.2 - 2.3.17.4	Digital Pressure Meter		
S/N:	CR3 Vit Tests 2.3.9.4.6 - 2.3.9.5.11	Power Meter or Photometer		
Software REL:	CR4 Vit Tests 2.3.10.5.13	Power Meter Head		
Performed by:	Autosert 2.3.20.11	Pressure Transducer Box		
	Laser 2.3.33.1	Flow Meter		

Check one of the following:

☐ Preventative Maintenance (Complete Section 2.2, then proceed to 2.3)

☐ Service Call / Installation / Upgrade (Start at Section 2.3)

2.2 PREVENTATIVE MAINTENANCE

2.2.2.1.2 ☐ Visual Inspection - Connectors, Cables, Tubing and Fan Filters

2.2.2.1.3 ☐ CPC connectors

2.2.2.2.1 ☐ Touchscreen Calibration

2.2.2.3.3 ☐ MP3

2.2.2.4.1 ☐ Battery Replacement

2.2.2.5.1 ☐ VGA Video System Connected?

Yes ☐ Complete.

2.2.2.5.2 ☐ VGA Output

2.2.2.6.1 ☐ Video Overlay Connected?

Yes ☐ Complete.

2.2.2.6.3 ☐ Video overlay displayed

2.2.2.7.1 ☐ DVD Recorder connected?

Yes ☐ Complete.

2.2.2.7.3 ☐ DVD Recorder

2.2.2.8.1 ☐ WiFi Connected?

Yes ☐ Complete.

2.2.2.8.1 ☐ WiFi Test

No ☐ Skip 2.2.2.5.2

No ☐ Skip 2.2.2.6.3

No ☐ Skip 2.2.2.7.3

No ☐ Skip 2.2.2.8.1

2.3 SERVICE CALL/INSTALL/UPGRADE

2.3.1.1 ☐ Display & Arm range of travel

2.3.2.1 ☐ Tray arm range of travel

2.3.3.2 ☐ Pressure Source

2.3.4.1 ☐ System Bootup

2.3.5.1 ☐ Touchscreen/Tone/Voice

2.3.5.2 ☐ Footswitch Positions

2.3.6.4 ☐ Footswitch Proportional

2.3.7.6 Suction - mmHg (632 to 668)

2.3.8.2 FAX mmHg (112.6 - 127.0)

CR3 Vit Tests

7500 cpm Vit CORE Peak psi (9.0 to 15.0)

7500 cpm Vit CORE Valley - psi (-12.0 to -19.0)

5000 cpm Vit CORE Peak psi (11.0 to 19.0)

5000 cpm Vit CORE Valley - psi (-12.4 to -19.0)

CR4 Smartvit Verification - Attach Smartvit Datasheet

Scissors psi (48-52)

Forceps psi (48-52)

VFC Inject psi (77-83)

VFC Extract mmHg (632-668)

Verify AGF tubing

AGF SF6 psi (29.5 - 30.5)

AGF SF6 psi (9.5 - 11.5)

AGF C3F8 psi (29.5 - 30.5)

AGF C3F8 psi (9.5 - 11.5)

2.3.16 Illumination Tabletop

Record Lamp Hours Hrs

Port 1 Lumens (10-22)

Port 2 Lumens (10-22)

Port 3 Lumens (10-22)

Port 4 Lumens (10-22)

RFID Ports 1 & 2

Illumination AUX

Record Lamp Hours Hrs

Port 3 Lumens (10-22)

Port 4 Lumens (10-22)

RFID Ports 3 & 4

2.3.9.4.6 7500 cpm Vit CORE Peak psi (9.0 to 15.0)

2.3.9.4.7 7500 cpm Vit CORE Valley - psi (-12.0 to -19.0)

2.3.9.5.10 5000 cpm Vit CORE Peak psi (11.0 to 19.0)

2.3.9.5.11 5000 cpm Vit CORE Valley - psi (-12.4 to -19.0)

2.3.10.5.13 CR4 Smartvit Verification - Attach Smartvit Datasheet

2.3.11.4 Scissors psi (48-52)

2.3.12.4 Forceps psi (48-52)

2.3.13.4 VFC Inject psi (77-83)

2.3.14.3 VFC Extract mmHg (632-668)

2.3.15.2 Verify AGF tubing

2.3.15.6 AGF SF6 psi (29.5 - 30.5)

2.3.15.8 AGF SF6 psi (9.5 - 11.5)

2.3.15.11 AGF C3F8 psi (29.5 - 30.5)

2.3.15.12 AGF C3F8 psi (9.5 - 11.5)

2.3.16 Illumination Tabletop

2.3.16.2 Record Lamp Hours Hrs

2.3.16.3 Port 1 Lumens (10-22)

2.3.16.4 Port 2 Lumens (10-22)

2.3.16.5 Port 3 Lumens (10-22)

2.3.17 Illumination AUX

2.3.17.2 Record Lamp Hours Hrs

2.3.17.3 Port 3 Lumens (10-22)

2.3.17.4 Port 4 Lumens (10-22)

2.3.17.5 RFID Ports 3 & 4

2.3.18.2 Diathermy Load ohms (71 - 79 ohms)

2.3.19.4 Diathermy @ 100% Vrms (24.6 to 29.9)

2.3.19.5 Diathermy Frequency MHz (1.35 to 1.65)

2.3.20.11 Autosert steps complete without error

2.3.21.4 SD Write

2.3.22.2 SD Read

2.3.22.3 ALCON PERSONNEL ONLY: Uploaded Log.

2.3.23.1 Remote Control

2.3.24.2 Ring Illumination/RFID - Green and Amber

2.3.24.3 Ring Illumination - Lavender

2.3.25.1 Cassette Detection and ID

2.3.26.2 Bar Code Scanner

2.3.27.2 Successful Prime

2.3.28.1 Phaco 100% Power

Record Phaco Handpiece Serial Numbers

SN

SN

2.3.29.4 Flow Test

2.3.30.3 Infusion mmHg (112.6 - 127.0)

2.3.30.4 Backup Infusion mmHg (18-42)

2.3.31.1 Backup Battery Test

2.3.32.1 Manual Cassette Release

2.3.33.1 Laser - Refer to Pure Point STP and Data Sheet

NOTES:

Title

Drawing Number

Revision

STP - CONSTELLATION MANUAL STP AND DATA SHEET

917-2120-001

L

Irvine, CA

27 of 27

Room#

Examination unit Check List

Customer		Date :
Main body	S/N	Location :
Slit lamp	S/N	Service Engineer :

☐	First PPM
☐	Second PPM

Special Tools Needed
Special Cleaning Paper
Methanol

- ☐ Checking Indirect Bulb
- ☐ Attaching a pad of the chin rest
- ☐ Checking the fuses
- ☐ Checking the illumination
- ☐ Cleaning outer parts
- ☐ Cleaning the optics
- ☐ Checking the chair movement
- ☐ Checking the head light
- ☐ Checking the chart projector illumination
- ☐ Checking the phoropter
- ☐ Checking the table movement

Remarks

Avedro KXL PPM CHECK LIST

Customer	
Main body	S/N:

Date	
Location	
Service Engineer	

- ☐ Check Movement
- ☐ Alignment the beam
- ☐ Calibration the UV / /
- ☐ Clean front lens
- ☐ Check Adapter output / /
- ☐ Check Setting

Remarks

DC-3000/3300 PPM CHECK LIST

Customer	
DC-3000/3300 main body	S/N:
ENDO PROBE	S/N
Accessory1	S/N
Accessory2	S/N

Date	
Location	
Service Engineer	

Power Data

Color	Power indicator	Spot size
IR		MAX
	50 mw	
	100 mw	
	200 mw	
	500 mw	

- ☐ Checking the fiber alignment
- ☐ Checking the indicated spot size
- ☐ Checking the protective filter
- ☐ Checking the laser output
- ☐ Cleaning the optics
- ☐ Checking the output and volatage of LH
- ☐ Checking the power source

Remarks

MC-7000 PPM CHECK LIST

Customer	
MC-7000 main body	
Slit lamp	S/N
Accessory1	S/N
Accessory2	S/N

Date	
Location	
Service Engineer	

spot size : 500µm

Power Data				
Color	Power indicator	Power Meter		
GREEN,YELLOW,RED		RED	YEL	GYN
	50 mw			
	100 mw			
	200 mw			
	500 mw			
	900 mw			
	1000 mw			

- ☐ Checking the fiber alignment
- ☐ Checking the indicated spot size
- ☐ Checking the protective filter
- ☐ Checking the laser output
- ☐ Cleaning the optics
- ☐ Checking the output and volatage of LH
- ☐ Checking the power source
- ☐ Checking the water level
- ☐ Checking the footswitch

Remarks

PPM Check List Moria EVOLUTION

Equipment: Microkeratome .
Customer / Location:

Model:	S/N:		
		Pass	Fail
1. Check the input source /	/v	☐	☐
2. Clean the body		☐	☐
3. Clean the motors		☐	☐
4. Check the Vacuum /	/	☐	☐
5. Check for any Err and retest		☐	☐
6. Check footswitch		☐	☐
7. C heck Motor Movement forward backward		☐	☐
8. Remome the power cable and check Battery .		☐	☐

Unit meets all specifications and suitable for its intended use. () Yes () No

Test performed by _____
Date: _____

Signature _____

Equipment	UP1000 Check list
Date	
Location	
Service Engineer	
Customer	
UP1000	
Accessory1	

☐ First PPM
☐ Second PPM

Special Tools Needed	Calibration Date
Pack Crystal	

☐ Make test for probe
☐ Gain control knob Rotation
☐ Check freezing
☐ Check footswitch
☐ Checking noise
☐ Checking the power source

Remark

Customer Name:	
Customer/ Dr. Signature :	

Equipment	US SERIES Check list
Date	
Location	
Service Engineer	
Customer	
US SERIES	
Accessory1	

☐ First PPM
☐ Second PPM

Special Tools Needed	Calibration Date
Packy Crystal	
Phantom Crystal	

☐ Measure the A Probe reading by phantom crystal / /
☐ Gain control knob Rotation
☐ Check B probe & cable
☐ Check freezing in A&B-mode
☐ Test real and Celicon eye
☐ Check footswitch
☐ Checking noise in B mode
☐ Checking the power source
☐ checking the Pachy Probe Reading by Crystal / /
☐ Check button Function

Remark _____

Customer Name:	
Customer/ Dr. Signature :	

Equipment	ARK Check list
Date	
Location	
Service Engineer	
Customer	
ARK SERIES	
Accessory1	

☐ First PPM
☐ Second PPM

Special Tools Needed	Calibration Date
Calibration Kit	
Methanol	
Special Clining Paper	

☐ Focusing of Target reticle (circle)
☐ Characters on the T.V monitor
☐ Smooth horizontal movement of main body
☐ Clean the lenses
☐ Test real eye
☐ Chin Rest vertical Smooth movement
☐ Check PD Sensor
☐ Check button Function

Remark

Customer Name:	
Customer/ Dr. Signature :	

Equipment	Moller weddal
Date	
Location	
Service Engineer	
Customer	
SN	
Accessory1	
Accessory2	

☐ First PPM
☐ Second PPM

Special Tools Needed	Calibration Date

☐ Checking Unit power On/Off
☐ Light source checked
☐ Checking the fuses
☐ Checking the main device
☐ Checking the fiber optic
☐ Checking Microscope body

Remark

Customer Name:

Customer/ Dr. Signature :

Equipment	<i>Relaince</i>
Date	
Location	
Service Engineer	
Customer	
SN	
Accessory1	
Accessory2	

☐ First PPM
☐ Second PPM

Special Tools Needed	Calibration Date

☐ Checking Unit power On/Off
☐ checking pumps
☐ Checking the fuses
☐ Check suction

Remark _____

Customer Name:	
Customer/ Dr. Signature :	

Equipment	YC SERIES Check list
Date	
Location	
Service Engineer	
Customer	
YC Main Body	
Accessory1	

☐ First PPM
☐ Second PPM

Special Tools Needed	Calibration Date
Power meter	
Methanol	
Special Clining Paper	

☐ Checking the illumination bulb
☐ Adjusting the optical Axis of the laser beam
☐ Adjusting the optical Axis of the illumination
☐ Aligning the aiming beam with yag laser beam
☐ Cleanning the optics
☐ Checking the laser output
☐ Checking the power source
☐ Checking the mechanical movement

Remark

Customer Name:	
Customer/ Dr. Signature :	

CERTIFICATE OF AUDIOMETER CALIBRATION

Grason-Stadler
7625 Golden Triangle Drive
Eden Prairie, MN 55344



Owner _____ Model _____ Serial Number _____
Technician _____ Station _____ Date _____ Software Version _____

[illegible]

Test	Pass	Fail
Distortion		
Rise / Fall Time		
Sound from Second Earphone		
Monitor Phone		
Talk Back Microphone		
Talk Forward Microphone		
Patient Response		
On the Off Date		

Remarks

A.C Phones	Insert Phones	
L	L	
R	R	
Bone Vibrator		

F1236 Rev A

CALIBRATED PER ANSI S3.6-2004, IEC 645

CERTIFICATE OF CALIBRATION - TYPSTAR V2

Owner: _____
Model: _____
Serial Number: _____

Model:

Model:

Contra Phone S/N: Probe S/N:

Probe S/N:

Probe S/N:

ATTENUATOR ERROR		PROBE TONE					
		FREQUENCY		SPL (2ML)		THD	
		NORMAL	MEASURED	NORMAL	MEASURED	NORMAL	MEASURED
	120						
	115						
	110						
	105					<2%	
	100					<2%	
	95					<2%	

80		Test		Pass	Fail
75		Distortion			
70	REF	Rise / Fall Time			
65		Sound from Second Earphone			
60		Pressure Overshoot			
55		Pressure Leak Rate			
50		Safety Valve Test			
45		Multi Frequency Immittance Test			
40		On/Off Ratio			

PRESSURE CALIBRATION								
NOMINAL	400	200	100	0	-100	-200	-400	-600
MEASURED								

STIMULUS CALIBRATION					
NORMAL	MEASURED	SPL ERROR IPSI PROBE		SPL ERROR CONTRA PROBE	
		IPSI CH	CONTRA CH	IPSI CH	CONTRA CH
250					
500					
1000					
2000					
4000					
6000					
LBN					
HBN					
BBN					
CLICK/PPK					

VOLUME CALIBRATION			
NORMAL	226 Hz	678 Hz	1000 Hz
0.2			
0.5			
1.0			
2.0			
5.0			
6.0			

Firmware Version

Station

Technician

Date _____

CALIBRATED PER ANSI S3.6-1996, S3.39-1987

F1221 Rev B

gsi
Grason-Stadler

Grason-Stadler
7625 Golden Triangle Drive
Eden Prairie, MN 55344